

EL DORADO COUNTY EMS AGENCY FIELD POLICIES

Effective: July 1, 2015

Reviewed: July, 2015, 2017, 2019

Revised: N/A

Scope: BLS/ALS Personnel



EMS Agency Medical Director

MANAGEMENT OF PRE-EXISTING MEDICAL INTERVENTIONS

PURPOSE:

To provide guidelines for dealing with pre-existing medical devices and/or medications outside of the EMT-Paramedic scope of practice.

I. PRE-EXISTING TRANSDERMAL MEDICATIONS:

Leave patches in place, except in the following situations:

- Nitroglycerine patches prior to cardioversion/defibrillation
- Clonidine (Catapres) or nitroglycerine patches should be removed if patient is exhibiting signs of shock (systolic BP <90)
- Fentanyl patches in patients exhibiting respiratory depression
- Nicotine patches in patients exhibiting chest pain

If patches are removed, wipe any remaining medication from the skin with a towel or cloth.

Contact base station for consultation regarding other medications.

II. PRE-EXISTING VENTILATORY SUPPORT:

1. Do not disconnect the ventilation device if the device is portable and the person normally responsible for operating the device is present and able to monitor and control the ventilation device during transport.

2. Disconnect the ventilation system and ventilate the patient using a BVM if the ventilation device is: 1) not portable, 2) malfunctions

3. If the vent is preset and functioning normally and the person normally responsible for its operation is not able to monitor and control the ventilation device during transport you can still transport the patient. If the vent malfunctions follow step 2.

4. Ventilations should be delivered at the rate and volume pre-determined by the patient's physician.

Contact the base station for direction if necessary.

III. VENTRICULAR ASSIST DEVICE (VAD):

INFORMATION:

Blood flow is determined by the set pump speed. It is afterload dependent (elevated blood pressure will decrease the flow) and preload sensitive (assess for dehydration, right ventricular failure, fluid overload).

A patient with a VAD will typically have no palpable pulse but they do have heart rate and rhythm. Determine what rhythm the patient is in as soon as possible. BP usually cannot be auscultated and pulse oximetry may not be measurable or accurate.

VAD PROCEDURE:

1. Follow appropriate EDCEMS treatment protocol (**treat underlying rhythm**) for the patient's condition. If any questions or concerns contact the local VAD center the patient is linked to. Phone number is located with the equipment bag.
2. Chest compressions are contraindicated. **DO NOT PERFORM COMPRESSIONS.** Follow all other EDCEMS protocols including pacing/defibrillation for patient condition.
3. VAD patients should be assessed for signs of circulation via capillary refill, skin color, and temperature.
4. Most patients with a VAD will also have an ICD or pacemaker ICD.
5. Most patients have a trained companion accompanying them. Utilize their knowledge to assist with any troubleshooting. All VAD patients have a coordinator's number attached somewhere on the machine or carry bag.
6. If transporting this patient bring the power source (A/C)/batteries and chargers with the patient to the hospital.
7. A patient with a VAD should typically be transported to the nearest appropriate VAD center. The patient and/or their companion will be able to advise prehospital personnel of the requested transport destination. Trauma of any kind even a fall could be reason enough to take the patient to a VAD center. If the patients' condition does not warrant transportation to the VAD center or if there are any questions regarding appropriate destination, the base hospital shall be contacted for destination decision.
8. Take visiting/out of area patients to the closest VAD Center:
 - UCDMC
 - Sutter Medical Sacramento
 - Mercy General
9. Trouble shooting the device:
 - Battery/Power
 - a. Replace the battery.
 - b. Place patient on home battery power (A\C) assure it is plugged into the wall.
 - c. Do not delay transport if the controller reads low battery or has the minute countdown that is low.
 - Controller Related
 - a. Assure all cables are attached.
 - b. If all cables are attached and Controller is failing have the patient change the controller. You may need to assist patient with changing the controller.
 - c. Auscultate over the heart to evaluate for humming. The humming sound indicates the pump is running.
 - Internal Device Related
 - a. Take patient to VAD Center
10. VAD patients should be assessed for signs of circulation via capillary refill, skin color, and temperature.
11. When consulting with ER staff from a VAD Center inform them you have a VAD patient and what the situation is. In most cases you will be required to call back or give a return phone number for the cardiologist to get on the phone.

Contact the base station for direction if necessary.

VAD Example:

Parts and pieces:

<p>1 Internal pump: Speed ranges: 6000-15000 RPM Flow ranges: 3-10L/min</p> 	<p>2. System controller (EPC and PC) Controls the functions of the pump Records events Connects pump to power sources Provides alarms when there is a problem with the pump EPC</p>  <p>PC</p> 
<p>3. Batteries and battery clips 6-10 hours of support per one pair of batteries Four hours to recharge Supplies power to VAD when pt mobile</p> 	<p>4. Power Module Supplies AC power to VAD</p> 
<p>6. Emergency travel bag- Every patient should have a travel case. Inside the case should be two to four spare fully charged batteries, emergency contact info, a spare system controller, spare battery clips and a laminated card identifying the patient and the center where the device was implanted. <u>This must be with the patient at all times.</u></p>	<p>5. Universal battery charger Charges 4 batteries at the time Calibrates batteries</p>  